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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR                            | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---|---------------------|------------------|
| 10/082,089      | 02/26/2002  | Hitoshi Takayanagi                              | 020232              | 8614             |
| 23850           | 7590        | 02/04/2004                                      |                     | EXAMINER         |
|                 |             | ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP |                     | DOE, JANIS L     |
|                 |             | 1725 K STREET, NW                               |                     |                  |
|                 |             | SUITE 1000                                      | ART UNIT            | PAPER NUMBER     |
|                 |             | WASHINGTON, DC 20006                            | 1756                |                  |

DATE MAILED: 02/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                           |                   |
|------------------------------|---------------------------|-------------------|
| <b>Office Action Summary</b> | Application No.           | Applicant(s)      |
|                              | 10/082,089                | TAKAYANAGI ET AL. |
|                              | Examiner<br>Janis L. Dole | Art Unit<br>1756  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 January 2004.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4,6-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,6-8 and 10-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>1/8/04</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____  |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Dec. 12, 2003, has been entered.

2. The examiner acknowledges the amendments to claims 1, 6, and 8, filed on Nov. 10, 2003 (Amdt111003), which was entered upon the filing of the RCE. The examiner also acknowledges the cancellation of claim 9, the amendments to claims 10 and 11, and the addition of claim 12, filed on Jan. 14, 2004 (Amdt011404). Claims 1-4, 6-8, and 10-12 are pending.

3. The rejection of claims 1-4 and 6-11 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Jul. 10, 2003 (CTFR071003), paragraph 4, has been withdrawn in response to the amendment of claim 1.

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The rejection of claims 1-4 and 6 under 35 U.S.C. 102(e) over US 2001/0033982 A1 (Ishikawa), set forth in CTFR071003, paragraph 6, has been withdrawn in response to the amendment to claim 1, limiting the organic pigments to be represented by any one of formulas 3, 4, and 6-8. Ishikawa does not exemplify a magenta toner comprising such an organic pigment.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is missing a terminal period. It is not clear where applicants intend the claim to end.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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7. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,063,537 (Nakamura) combined with US 2002/0058193 A1 (Tosaka), as evidenced by American Chemical Society (ACS) File Registry Nos. 56396-10-2, 6448-96-0, and 12225-06-8.

Nakamura discloses a magenta toner comprising spherical toner particles having a roundness of 0.981. See Table 2 at col. 27, example M-2. The toner particles comprise a wax and polyester binder resin A, which has a carboxyl group and an acid value of 3.3 mg KOH/g of binder resin, having dispersed therein the magenta pigment C.I. Pigment Red 184. See Table 1 at col. 19, polyester resin A; col. 19, lines 60-61; and col. 21, lines 28-33. Nakamura's polyester binder resin A meets the compositional limitations recited instant claims 6 and 7.

Nakamura's roundness has the same definition as the roundness recited in instant claims 2-4. Compare Nakamura, col. 3, lines 1-27, with the instant specification, page 16. The roundness of 0.981 is within the ranges recited in instant claims 2-4.

Nakamura does not exemplify a magenta pigment as recited in instant claim 1. However, Nakamura discloses that "known pigments . . . are used as colorants for full-color toner." Col. 9, lines 13-14.

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Tosaka discloses monoazo pigment compositions comprising a monoazo pigment of a specified structure and specified amounts of a  $\beta$ -naphthol compound of formula (2) and an aromatic amine of formula (3). Paragraphs 0046-0057. Tosaka teaches that the monoazo pigment of a specified structure may include C.I. Pigment Red 31, 150, 176, and 184, preferably C.I. Pigment Red 31, 150, and 176. Paragraphs 0080-0081, Table 1-1 at page 25, production examples 1-1 through 1-8, and Table 1-2 at page 26, toners 1-6 through 1-8. The ACS File Registry Nos. 6448-96-0, 56396-10-2, and 12225-06-8, respectively identify C.I. Pigment Red 31, 150, and 176 as having the identical chemical structures as the organic pigments of formulas 4, 3, and 6, respectively, recited in instant claim 1.

Tosaka discloses that magenta toners that comprise its monoazo pigment compositions have excellent color reproducibility, gradation characteristic, light-fastness, and chargeability. Paragraph 0039, and Table 1-3 at page 27, toners 1-6 through 1-8. The magenta toners are capable of forming a fixed image with excellent transparency. Paragraph 0042. According to Tosaka, the magenta toners are also capable of providing high quality full-color images with excellent color reproducibility. Paragraph 0041.

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It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Tosaka, to use Tosaka's monoazo pigment composition as the magenta pigment in Nakamura's toner M-2, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Tosaka.

8. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura combined with US 2002/0037466 A1 (Kanbayashi).

Nakamura discloses a magenta toner comprising spherical toner particles, as described in paragraph 7 above, which is incorporated herein by reference.

Nakamura does not exemplify a magenta pigment as recited in instant claim 1. However, Nakamura discloses that "known pigments are used as colorants for full-color toner." Col. 9, lines 13-14.

Kanbayashi discloses that magenta toners having a good hue can be provided when a compound represented by formula (1) and a compound of formula (3) are mixed and uniformly dispersed in the toner. Paragraph 0072-0075 and 0077-0078. According to Kanbayashi, the mixture comprising the compound of formula (1) and the compound of formula (3) provides magenta toners having

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the color tone of magenta in ink processes, and having good light-fastness. Paragraph 0076 and 0086. Kanbayashi discloses that the compound of formula (1) may preferably be represented by compounds of formulas (1-3) and (1-4). According to Kanbayashi, "[t]his is preferable in view of the color tone control, stabilization of charge and so forth."

Paragraphs 0087-0088. Formulas (1-3) and (1-4) have the identical chemical structures as the organic pigments of formulas 4 and 7, respectively, recited in instant claim 1.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Kanbayashi, to use Kanbayashi's mixture comprising the compound of formula (3) and the compound represented by formulas (1-3) or (1-4), as the magenta pigment in Nakamura's toner M-2, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having good hue and light-fastness as taught by Kanbayashi.

9. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,265,125 B1 (Anno) combined Tosaka, as evidenced by ACS File Registry Nos. 56396-10-2, 6448-96-0, and 12225-06-8.

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Anno discloses a magenta toner comprising spherical toner particles having a roundness of 0.986. See Table 3 at col. 20, toner N. The toner particles comprise a wax and polyester binder resin B, which has a carboxyl group and an acid value of 24.9 mg KOH/g of binder resin, having dispersed therein the magenta pigment C.I. Pigment Red 184. Table 2 at col. 15, polyester resin B; col. 16, lines 50-51; and col. 18, lines 26-47. Anno's polyester binder resin B meets the compositional limitations recited in instant claims 6 and 7. Anno's roundness has the same definition as the roundness recited in instant claims 2-4. Compare Anno, col. 4, lines 25-53, with the instant specification, page 16. The roundness of 0.986 is within the ranges recited in instant claims 2-4. Anno discloses that its toner can be used in processes to provide full-color images with no fogging. See col. 20, lines 53-54; and Table 4 at col. 23, example 2.

Anno does not exemplify a magenta toner comprising a magenta organic pigment as recited in instant claim 1. However, Anno does not limit the type of magenta pigment used. Anno discloses that the "various known colorants, such as magenta color . . . may be used." Col. 9, lines 6-8. Anno discloses that magenta colorants may include, in addition to C.I. Pigment Red 184, C.I. Pigment Red 31. Col. 9, line 11.

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Tosaka discloses monoazo pigment compositions comprising the monoazo pigment of a specified structure and specified amounts of a  $\beta$ -naphthol compound of formula (2) and an aromatic amine of formula (3). Tosaka teaches that the monoazo pigment may preferably include C.I. Pigment Red 31, 150, and 176. The C.I. Pigment Red pigments have the identical chemical structures as the organic pigments of formulas 4, 3, and 6, respectively, recited in instant claim 1. The discussions of Tosaka and the ACS File Registry numbers in paragraph 7 are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Tosaka, to use Tosaka's monoazo pigment composition as the magenta pigment in Anno's toner N because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Tosaka.

10. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with Kanbayashi.

Anno discloses a magenta toner comprising spherical toner particles, as described in paragraph 9 above, which is incorporated here by reference.

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Anno does not exemplify a magenta toner comprising a magenta organic pigment as recited in instant claim 1. However, Anno does not limit the type of magenta pigment used. Anno discloses that the "various known colorants, such as magenta color . . . may be used." Col. 9, lines 6-8. Anno discloses that magenta colorants may include, in addition to C.I. Pigment Red 184, C.I. Pigment Red 31. Col. 9, line 11.

Kanbayashi discloses that magenta toners having a good hue can be provided when a compound represented by formula (3) and a compound of formulas (1-3) and (1-4) are mixed and uniformly dispersed in the toner. Formulas (1-3) and (1-4) have the identical chemical structures as the organic pigments of formulas 4 and 7, respectively, recited in instant claim 1. The discussion of Kanbayashi in paragraph 8 above is incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Kanbayashi, to use Kanbayashi's mixture comprising the compound of formula (3) and the compound represented by formulas (1-3) and (1-4), as the magenta pigment in Anno's toner N, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having good hue and light-fastness as taught by Kanbayashi.

11. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with Tosaka, as evidenced by the ACS File Registry Nos. 56396-10-2, 6448-96-0, and 12225-06-8, as applied to claim 1 above, further combined with US 6,183,924 B1 (Nomura).

The combined teachings of Anno and Tosaka render obvious a magenta toner as described in paragraph 9 above, which is incorporated herein by reference.

Anno does not disclose making its toner by the steps recited in instant claims 8 and 10-12. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Col. 4, lines 5-12. Nomura's method comprises the steps of: (1) dissolving or dispersing a binder resin and a colorant in an organic solvent to form a mixture; (2) mixing and emulsifying the mixture of step (1) with an aqueous medium in the presence of a base and isopropyl alcohol to cause a phase inversion emulsification to form spherical particles; (3) separating the spherical particles from the aqueous medium; and (4) drying the separated particles. Col. 9,

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line 44, to col. 10, line 37; and toner preparation example 1 at col. 19. Nomura teaches that the binder resin can be a polyester resin having an acid value of 1 to 30. Col. 12, lines 20-21. As discussed in paragraph 9, supra, Anno's polyester binder resin B has an acid value of 24.9 mg KOH/g of binder resin. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8 and 10 to 12, but for the particular magenta pigment of formula (1) recited in instant claim 1. However, as discussed in paragraph 9, supra, the combined teachings of Anno and Tosaka render obvious a spherical toner comprising a magenta pigment of formulas 3, 4, and 6 recited in instant claim 1. Nomura discloses that its method provides toners where the additives, such as colorants, are dispersed and encapsulated. According to Nomura, when additives such as colorants are present on the surface of the toner particles, the triboelectricity of the toner is reduced. Col. 6, lines 46-52. Nomura also discloses that its emulsification process has the advantages over a pulverization process (the process exemplified in Anno) of greater ease of production and lower cost. Col. 7, lines 3-5. Nomura further discloses that its process easily provides toners with a sharp particle distribution which results in improved image quality. Col. 7, lines 11-13.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner rendered obvious over the combined teachings of Anno and Tosaka by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

12. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with Kanbayashi, as applied to claim 1 above, further combined with Nomura.

The combined teachings of Anno and Kanbayashi render obvious a magenta toner as described in paragraph 10 above, which is incorporated herein by reference.

Anno does not disclose making its toner by the steps recited in instant claims 8 and 10-12. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Nomura's method meets the steps of making a

spherical toner as recited in instant claims 8 and 10 to 12, but for the particular magenta pigment of formula (1) recited in instant claim 1. However, as discussed in paragraph 10, supra, the combined teachings of Anno and Kanbayashi render obvious a spherical toner comprising a magenta pigment of formulas 3 and 7 recited in instant claim 1. The discussion of Nomura and Anno in paragraph 11 above is incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner rendered obvious over the combined teachings of Anno and Kanbayashi by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

13. Applicants' arguments filed in Amdt111003 with respect to the rejections set forth in paragraphs 7-12 above have been fully considered but they are not persuasive.

Applicants argue that Tosaka and Kanbayashi are not prior art. Applicants assert that they have perfected their claim to foreign priority under 35 U.S.C. 119, by filing a verified

English-language translation of the priority document, Japanese patent application Hei 2001-56636, filed on Nov. 10, 2003.

Applicants argue that the translation provides antecedent basis for the subject matter recited in the instant claims.

The translation does not provide an adequate written description of the subject matter recited in instant claims 1-4, 6-8, and 10-12 as required under 35 U.S.C. 112, first paragraph. For example:

1) The translation does not disclose the pigments of formulas 3, 4, and 6-8 recited in instant claims 1 and 8, which are identified by the instant specification as C.I. Pigment Red 150, 31, 176, 187, and 188, respectively. See the instant specification, pages 19-20. Rather, the translation at page 1 discloses the magenta pigment, C.I. Pigment Red 146, which has the formula (1) at page 1 of the translation, which does not meet the pigments recited in instant claim 1. See the instant specification, page 19, lines 4-5, which describes the pigment C.I. Pigment Red 146. The translation at pages 18-20 discloses the pigments C.I. Pigment Red 122, 22, 48:1, 48:3, and 57:1, which are not recited in instant claim 1.

2) The translation does not recite that the "organic pigment is dispersed finely in the binder resin" as required in instant claims 1-4, 6-8, and 10-12.

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3) The translation at page 1 discloses that its toner has an average roundness of 0.97 or more. Instant claims 1, 2, 6-8, and 10-12 do not require that the color toner have an average roundness of 0.97 or more.

4) The translation does not disclose the average roundness degree of "0.93" recited in instant claim 3. The translation at page 18, lines 6-9, discloses the disadvantages of toners having an average roundness of less than 0.97.

Thus, the subject matter recited in claims 1-4, 6-8, and 10-12 are not entitled to the benefit of priority under 35 U.S.C. 119. Accordingly, the rejections over Tosaka and Kanbayashi stand.

14. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with Japanese Patent 2000-81734 (JP'734). See the DERWENT translation of JP'734 for cites.

Anno discloses a magenta toner comprising spherical toner particles, as described in paragraph 9 above, which is incorporated here by reference.

Anno does not exemplify a magenta toner comprising a magenta organic pigment as recited in instant claim 1. However, Anno does not limit the type of magenta pigment used. Anno

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discloses that the "various known colorants, such as magenta color . . . may be used." Col. 9, lines 6-8. Anno discloses that magenta colorants may include, in addition to C.I. Pigment Red 184, C.I. Pigment Red 31. Col. 9, line 11.

JP'734 discloses a magenta toner that has high coloring power, colorfulness, and brightness. Translation, paragraph 0027. The toner comprises a polyester resin having an acid value of 2 to 25 mg KOH/g and a magenta colorant represented by the formula (I), such as C.I. Pigment Red 31 and C.I. Pigment Red 184. Translation, paragraphs 0031-0032, example 6 in paragraphs 0151-0152, and example 7 in paragraphs 0153 and 0154. The colorant C.I. Pigment Red 31 has the identical chemical structure as the organic pigment of formula 4 recited in instant claim 1. As discussed in paragraph 9 above, Anno's magenta toner comprises a polyester having an acid value of 24.9 mg KOH/g and the magenta pigment C.I. Pigment Red 184. The toner polyester resin taught by Anno is within the polyester limitation disclosed by JP'734. JP'734 shows that magenta toners comprising the magenta colorant C.I. Pigment Red 184 and toners comprising the colorant C.I. Pigment Red 31 provide similar results in color reproduction, light resistance, OHP (overhead projection) transparency, image density, and charge stability. See Table 2, examples 6 and 7

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Red 31 provide similar results in color reproduction, light resistance, OHP (overhead projection) transparency, image density, and charge stability. See Table 2, examples 6 and 7 (second and third rows from the bottom), and the accompanying text.

According to JP'734, when the toner comprises the magenta colorant of formula (I), the toner has an "effect remarkable in electrical charging stabilization of a color toner." Translation, paragraph 0034. The toner has excellent light resistance. Translation, paragraphs 0041 and 0043, example 6 in Table 2, and the accompanying text. JP'734 discloses that the magenta colorant of formula (I) shows the "color phase shifted to red tinge." Thus, the magenta toner has the "spectrum property desirable as a magenta toner for the full-color image formation." Translation, paragraph 0046.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'734, to use the equivalent magenta colorant C.I. Pigment Red 31, as the magenta pigment in Anno's toner N, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having good hue, light-fastness, and coloring power as taught by JP'734.

(second and third rows from the bottom), and the accompanying text.

According to JP'734, when the toner comprises the magenta colorant of formula (I), the toner has an "effect remarkable in electrical charging stabilization of a color toner."

Translation, paragraph 0034. The toner has excellent light resistance. Translation, paragraphs 0041 and 0043, example 6 in Table 2, and the accompanying text. JP'734 discloses that the magenta colorant of formula (I) shows the "color phase shifted to red tinge." Thus, the magenta toner has the "spectrum property desirable as a magenta toner for the full-color image formation." Translation, paragraph 0046.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'734, to use the equivalent magenta colorant C.I. Pigment Red 31, as the magenta pigment in Anno's toner N, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having good hue, light-fastness, and coloring power as taught by JP'734.

15. Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura combined with JP'734. See the DERWENT translation of JP'734 for cites.

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Nakamura discloses a magenta toner comprising spherical toner particles, as described in paragraph 7 above, which is incorporated herein by reference.

Nakamura does not exemplify a magenta pigment as recited in instant claim 1. However, Nakamura discloses that "known pigments are used as colorants for full-color toner." Col. 9, lines 13-14.

JP'734 discloses a magenta toner comprising a polyester resin having an acid value of 2 to 25 mg KOH/g and the magenta colorant C.I. Pigment Red 31. The colorant C.I. Pigment Red 31 has the identical chemical structure as the organic pigment of formula 4 recited in instant claim 1. The discussion of JP'734 in paragraph 14 is incorporated herein by reference. As discussed in paragraph 7 above, Nakamura's magenta toner M-2 comprises a polyester resin having an acid value of 3.3 mg KOH/g and the magenta pigment C.I. Pigment Red 184. The toner polyester resin taught by Nakamura is within the polyester limitation disclosed by JP'734.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'734, to use the equivalent magenta colorant C.I. Pigment Red 31, as the magenta pigment in Nakamura's toner M-2, because that person would have had a reasonable expectation of successfully obtaining a magenta

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toner having good hue, light-fastness, and coloring power as taught by JP'734.

16. Claims 8 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anno combined with JP'734, as applied to claim 1 above, further combined with Nomura.

The combined teachings of Anno and JP'734 render obvious a magenta toner as described in paragraph 14 above, which is incorporated herein by reference.

Anno does not disclose making its toner by the steps recited in instant claims 8 and 10-12. However, Anno discloses that its toner can be obtained by an emulsion dispersion granulation method. Col. 5, line 65.

Nomura discloses an emulsion dispersion granulation method which provides toner particles having a degree of roundness of not less than 0.97. Nomura's method meets the steps of making a spherical toner as recited in instant claims 8 and 10 to 12, but for the particular magenta pigment of formula (1) recited in instant claim 1. However, as discussed in paragraph 14, supra, the combined teachings of Anno and JP'734 render obvious a spherical toner comprising a magenta pigment of formula 4 recited in instant claim 1. The discussion of Nomura and Anno in paragraph 11 above is incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Anno and Nomura, to make the toner rendered obvious over the combined teachings of in Anno and JP'734 by the emulsion dispersion granulation method disclosed by Nomura, such that the resultant toner has the roundness required by both Anno and Nomura, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed by Anno and Nomura.

17. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

18. Claims 1-4, 6-8, and 10-12 are provisionally rejected under the judicially created doctrine of obviousness-type double

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patenting as being unpatentable over claims 1, 2, 5-7, 9-11,

and 14-25 of copending Application No. 09/791,860

(Application'860) in view of Tosaka, as evidenced by the ACS

File Registry Nos. 56396-10-2, 6448-96-0, and 12225-06-8.

Claims 1-4, 6-8, and 10-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, 9-11, and 14-25 of copending Application'860 in view of Kanbayashi.

Claims 1-4, 6-8, and 10-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5-7, 9-11, and 14-25 of copending Application'860 in view of JP'734. See the DERWENT translation of JP'734 for cites.

These are provisional obviousness-type double patenting rejections.

Reference claim 1 recites a toner comprising spherical toner particles comprising a particular polyester resin and a colorant and having an average roundness of 0.97 or more. The polyester resin meets the binder resin compositional limitation recited in instant claim 6. The average roundness of 0.97 or more is within the roundness limitations recited in instant claims 2 and 3, and overlaps the range of 0.98 or more recited in instant claim 4. Reference claim 7, which depends from

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reference claim 1, further requires that the polyester resin have a carboxyl group and an acid value of 1-30 mg KOH/g, which meets the compositional limitation and acid value recited in instant claim 7.

Reference claim 15, which depends from reference claim 14, which depends from reference claim 1, recites a method of making the toner in reference claim 1, which comprises steps that meet the steps recited in instant claims 8, 11, and 12, but for the presence of a binder resin having a carboxyl group. Reference claim 16, which depends from reference claim 15, requires that the phrase inversion accelerator be an alcohol solvent, which is within the compositional limitation recited in instant claim 11. As discussed above, reference claim 7 requires that the toner polyester binder resin have a carboxyl group and an acid value of 1-30 mg KOH/g.

Thus, it would have been obvious for a person having ordinary skill in the art, in view of the subject matter recited in the claims of Application'860, to use the particular polyester resin recited in reference claim 1 having a carboxyl group as the polyester resin binder in the method recited in reference claims 15 and 16, because that person would have had a reasonable expectation of successfully obtaining a toner comprising spherical toner particles having an average roundness

of 0.97 or more that is useful for electrostatic image development.

The reference claims do not recite the use of a magenta colorant as recited in instant claims 1 and 8.

Tosaka discloses monoazo pigment compositions that have the identical chemical structures as the organic pigments of formulas 3, 4, and 6, respectively, recited in instant claims 1 and 8. The discussions of Tosaka and the ACS File Registry numbers in paragraph 7 are incorporated herein by reference.

Kanbayashi discloses that magenta toners having a good hue can be provided when a compound represented by formula (3) and a compound of formulas (1-3) and (1-4) are mixed and uniformly dispersed in the toner. Formulas (1-3) and (1-4) have the identical chemical structures as the organic pigments of formulas 4 and 7, respectively, recited in instant claims 1 and 8. The discussion of Kanbayashi in paragraph 8 above is incorporated herein by reference.

JP'734 discloses a magenta toner comprising a polyester resin having an acid value of 2 to 25 mg KOH/g and the magenta colorant C.I. Pigment Red 31. The colorant C.I. Pigment Red 31 has the identical chemical structure as the organic pigment of formula 4 recited in instant claim 1. The discussion of JP'734 in paragraph 14 is incorporated herein by reference. As

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discussed above, reference claim 7 requires that the toner polyester resin have an acid value of 1 to 30 mg KOH/g, which overlaps the range of 2 to 25 mg KOH/g disclosed by JP'734.

It would have been obvious for a person having ordinary skill in the art to use the magenta colorant disclosed by Tosaka, Kanbayashi, or JP'734 as the colorant in the toner recited in the reference claims of Application'860 and in the method of making the toner of reference claim 1 rendered obvious over the subject matter recited in Application'860, because that person would have had a reasonable expectation of successfully obtaining a magenta toner having the benefits disclosed Tosaka, Kanbayashi, or JP'734.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

JLD  
1/27/04

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